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EXAMINER

DANIELS, ANTHONY J

ART UNIT	PAPER NUMBER
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2622

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07/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/990,831	Applicant(s) KNIGHTON ET AL.	
	Examiner Anthony J. Daniels	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51, 54-59 and 71-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-26, 28, 30-50, 52-59 and 71-73 is/are rejected.
- 7) ☒ Claim(s) 4-6, 27 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment, filed 4/30/2007, has been entered and made of record. Claims 1-51, 54-59 and 71-73 are pending in the application.

Response to Arguments

1. Applicant's arguments filed 4/30/2007 have been fully considered but they are not persuasive.

As to Applicant's arguments regarding the Ohmura reference and claim 28, applicant asserts that the mounting tools of Ohmura cannot be construed as a handle. The examiner disagrees with this assertion and submits that the mounting tools are held by the hand of the user when they are mounted onto the user's head. Furthermore, simply because the user is not holding the mounting tools at all times does not preclude the mounting tools from being a handle.

As to applicant's arguments regarding the Rallison reference and claim 28, similar arguments exist for this claim. The user can hold the grip when putting the device of Rallison on his/her head. Further, with regard to the Rallison reference and claim 55, applicant states that adjusting focus shows how a predetermined focal distance is not maintained. However, the examiner only stated this to indicate that there can be mirrors between an eye of a user and the image and a focal distance can be maintained. Rallison does not even teach the feature of being able to adjust the focus manually. Thus, the argument is not even relevant. Applicant further states that a focal distance is not maintained because there is a space for accommodating the user's eyeglasses. However, whether or not the eyeglasses are worn does not have a bearing on the distance between the eye and the lens. More specifically, the eye is not displaced from where it would normally be when a user is not wearing glasses. Lastly, the examiner submits that

switching from a stereoscopic view to a non-stereoscopic view would not affect the focal distance between the eye and the first lens.

As to applicant's arguments regarding the Bronson reference and claim 28, applicant states that the applicants are unable to discern any part of Bronson that teaches the newly added feature of claim 1. The examiner respectfully disagrees with this statement and submits that Bronson teaches that the telescoping and rotating device of Bronson (see Figure 2b, "160") can be bent in any direction (see Col. 3, Lines 24-30). Thus, creating an acute or obtuse angle between the handle and the display device.

As to applicant's arguments regarding the Havey reference and claim 54, the examiner withdraws the mapping in the temporal domain argument. However, the examiner submits that there is an absolute displacement mapping for a mouse; and thus, the claim is anticipated by Havey. Applicant argues that lifting the mouse of the surface and placing it in a different location would not result in a movement by the cursor. However, the mouse would not be in use at this point. Take the present invention for example, if power was turned off to the device and the trigger is pressed for image capture, an image would not result because the device is not in use.

As to applicant's arguments regarding the Taguchi reference and claim 71, applicant states that in video compression, a series of still images are not encoded to achieve a video signal. However, Taguchi does not teach compression of the video signal. Moreover, video compression is most beneficial when transmitting a video signal from a remote source or the like. Taguchi is directed to a digital camera with no connection to an outside device.

As to applicant's arguments regarding the combination of Kanai and Abe and claim 1, applicant argues that the grip in Kanai is rotatable about the housing and not the other way around. However, the examiner submits that these two phenomena are one in the same.

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The examiner believes all arguments have been addressed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 28 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohmura et al. (US 2004/0130645).

As to claim 28, Ohmura et al. teaches an apparatus (Figure 27) comprising: a housing (Figure 27, housing of apparatus “200F”); a handle coupled to the housing (Figure 27, mounting tools “231” connected to the housing of apparatus “200F”) having a stowed orientation (Figure 27; *{Examiner interprets stowed orientation as an orientation when the mounting tools “231” are at any angle between 0° and 45° with respect to the axis containing the eyepiece windows “203a” and “203b”.*}) and a deployed orientation (Figure 27; *{Examiner interprets deployed orientation as an orientation when the mounting tools “231” are at any angle between 45° and 90° with respect to the containing the eyepiece windows “203a” and “203b”.*}); and a digital display assembly (Figure 27, LCDs “210a and b”) coupled to the housing (Figure 27, apparatus “200F”) having a stowed orientation (Figure 27; *{Examiner interprets stowed orientation as an orientation when the apparatus “200F” is at any angle between 0° and 45° with respect to the axis*

defined by the right or left mounting tool "231".}) and a deployed orientation (Figure 27; {Examiner interprets deployed orientation as an orientation when the apparatus "200F" is at any angle between 45° and 90° with respect to the axis defined by the right or left mounting tool "231".}), such that, in the deployed orientation, the display is laterally displaced relative to the handle (Figure 27; {Mounting tool "231" is in deployed orientation and the apparatus "200F" (which contains the display) is laterally displaced from it.}) such that, in use, a hand holding the handle is laterally displaced relative to a frontal face of a head of a user (It is inherent that a hand holding the grip is laterally displaced from the frontal face of a head of the user.), the handle and digital display assembly forming any one of an obtuse or acute angle with the handle extending downward from the digital display assembly and the digital display assembly extending across an eye of a user (Figure 27).

As to claim 40, Ohmura et al. teaches the apparatus of Claim 28 wherein in the deployed orientation, the handle may pivot to at least one self maintaining position on an axis orthogonal to an axis of rotation of the display assembly (Figure 27; {Either the right or left mounting tool could pivot on the axis containing the length of the mounting tool which is perpendicular to the vertical axis that cuts through the hinge (not numbered).}).

2. Claim 28,47-50,55-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Rallison et al. (US # 6,160,666).

As to claim 28, Rallison et al. teaches an apparatus (Figure 1) comprising: a housing (Figure 1, main portion "12"); a handle coupled to the housing (Figure 1, strap "16" and temple pieces "14 a and b" coupled to main portion "12"; {User's head grips the strap "16" and temple pieces "14 a and b".}) having a stowed orientation and a deployed orientation (Col. 5, Lines 14-17, "...compact configuration..." and

Figure 1 as seen in deployed); and a digital display assembly (LCD generator “74”) coupled to the housing (Figure 1 and Figure 15, main portion “12” coupled to LCD generator “74”) having a stowed orientation and a deployed orientation (Col. 5, Lines 1-4; lateral adjustment provides for both orientations, such that, in the deployed orientation, the display is laterally displaced relative to the grip (Col. 5, Lines 1-4; *{Display is laterally displaced relative to the grip in all positions.}*) such that, in use, a hand holding the handle is laterally displaced relative to a frontal face of a head of a user (Figure 1, *{A hand that can hold the strap is lateral displaced relative to the frontal face of a head of a user.}*), the handle and digital display assembly forming any one of an obtuse or acute angle with the handle extending downward from the digital display assembly and the digital display assembly extending across an eye of a user (Figure 1).

As to claim 47, Rallison et al. teaches the apparatus of Claim 28 further comprises: a visor (Figures 1 and 15; *{Examiner interprets visor as shield “302” and forehead brace “22”.}*) coupled to the housing (Figures 1 and 15) and to rest upon a forehead of the user when held by a user for use (Figure 15), the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user (Figure 1), the visor pivots coupled to the display assembly to pivot between an open and a closed position (Col. 5, Lines 8-17; *{Examiner interprets closed position where the visor, as interpreted by examiner, is pivoted above user’s eyes via the left and right strap pivots “17a and 17b”. Open position is a position as seen in Figure 15. As the main portion pivots, the shield pivots as well.}*).

As to claim 48, Rallison et al. teaches the apparatus of Claim 47 wherein pivoting the visor to the open position activates the display (Figure 15; *{Activated display is interpreted as being able to be viewed (used for intended purpose). In Figure 15, the open position is as seen.}*).

As to claim **49**, Rallison et al. teaches the apparatus of Claim 47 wherein when the visor is in the closed position, the display is in an inactive state (Col. 5, Lines 8-17; *{Closed position is visor and entire housing pivoted upward so LCD cannot be seen.}*).

As to claim **50**, Rallison et al. teaches the apparatus of Claim 47 wherein the visor protects a lens of the display assembly when in the closed position (Col. 10, Lines 49-54; *{Shield protects in all positions.}*).

As to claim **55**, Rallison et al. teaches a handheld apparatus (Figure 1, *{The apparatus in Figure 1 is able to be held by a hand.}*) comprising: a housing (Figure 1, main portion “12”) defining a first opening (Figure 1, opening on other side of the left lens “2” which the user’s eyes look through); a digital display disposed within the housing (Col. 2, Lines 3-8; Figure 15, image generator LCD “74”); a first lens disposed to be between a first eye of a user and the display when in use (Col. 2, Lines 58-67; Col. 3, Lines 1-4); and a visor (Figures 1 and 15; *{Examiner interprets visor as shield “302” and forehead brace “22”.}*) coupled to the housing (Figures 1 and 15) and to rest upon a forehead of the user when held by a user for use (Figure 15), the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user (Figure 1).

As to claim **56**, Rallison et al. teaches the apparatus of Claim 55 further comprising: a second lens disposed to be between a second eye of the user and the display when in use such that a binocular view is presented to the eyes of the user (Col. 2, Lines 58-67; Col. 3, Lines 1-4).

As to claim **57**, Rallison et al. teaches the apparatus of Claim 55 wherein the visor is pivotally coupled to the housing to pivot between an open position and a closed position (Col. 10, Lines 49-54)

As to claim **58**, Rallison et al. teaches the apparatus of Claim 55 wherein the cross-dimension is adjustable within a range (Col. 5, Lines 1-4; *{The lateral displacement of the strap laterally displaces cross dimension of the brace “22” with respect to the strap.}*).

As to claim **59**, Rallison et al. teaches the apparatus of Claim 55 wherein the visor is coupled to the housing so as to block some ambient light from the eye of the user when the apparatus is in use (Col. 10, Lines 44-49, "...converted from see-through...").

3. Claims 28,31,34,35,41-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Bronson (US # 6,384,863).

As to claim **28**, Bronson teaches an apparatus (Figure 1A) comprising: a housing (Figure 1A, housing lens assembly "200"); a handle coupled to the housing (Figure 1A, hand grip "100" coupled to housing of lens assembly "200") having a stowed orientation (Figure 1A) and a deployed orientation (Figure 1B; *{In a frame of reference of someone who is moving up with the digital camera (Col. 3, Lines 21-26) and looking down at the hand grip, it would seem as if the hand grip is moving down to a deployed orientation.}*); and a digital display assembly (Figure 1A, microdisplay viewfinder "220") coupled to the housing (Col. 3, Lines 58-61, microdisplay viewfinder coupled to housing of lens assembly "200") having a stowed orientation (Figure 1A) and a deployed orientation (Figure 1B), such that, in the deployed orientation, the display (Col. 3, Lines 58-61, "...microdisplay viewfinder 220...") is laterally displaced relative to the handle (Figure 1B) such that, in use, a hand holding the handle is laterally displaced relative to a frontal face of a head of a user (Figure 1B; Col. 4, Lines 52-60), the handle and digital display assembly forming any one of an obtuse or acute angle with the handle extending downward from the digital display assembly and the digital display assembly extending across an eye of a user (Figure 1A; Figure 2b, Col. 3, Lines 24-30).

As to claim **31**, Bronson teaches the apparatus of Claim 28 further comprising: a sensor to detect relative rotation of the display assembly (Col. 3, Lines 62-65; *{The processor, inherent in the digital*

camera, acts as a sensor, in that, when the button is depressed to initiate array rotation, the processor senses, by an inherent means of software or hardware, whether the camera is in portrait or landscape position in order to effectively position the array back to either the portrait or landscape position depending on the current position.}) and to signal the display to adjust an image on the display to maintain a consistent orientation of an image displayed (The consistent orientation of the image is having the entire subject captured using the portrait or landscape position.).

As to claim **34**, Bronson teaches the apparatus of Claim 28 further comprising: a lens assembly coupled to the handle (Figure 1A, lens “120”); and an image-sensing array (ISA) optically coupled to the lens assembly (Col. 3, Lines 62-65, “...image array...”; *{It is inherent that the image array is optically coupled to the lens “120”.}*).

As to claim **35**, Bronson teaches the apparatus of Claim 34 further comprising: a sensor to detect a position of the display assembly relative to the ISA (Col. 3, Lines 62-65; *{The processor, inherent in the digital camera, acts as a sensor, in that, when the button is depressed to initiate array rotation, the processor senses, by an inherent means of software or hardware, whether the camera is in portrait or landscape position in order to effectively position the array back to either the portrait or landscape position depending on the current position.}*) and cause an adjustment to an image displayed on the display assembly based on the position to maintain a consistent orientation of a target on the display (*The consistent orientation of the image is having the entire subject captured using the portrait or landscape position.*).

As to claim **41**, Bronson teaches the apparatus of Claim 31 wherein in the deployed orientation, the handle defines a first acute angle away from a body of an operator to permit comfort and reduce stress on

the hand and arm (*It is inherent that the body of an operator could be at a position to where, measured from the body of the operator, the grip is an acute angle away.*).

As to claim 42, Bronson teaches the apparatus of Claim 41 wherein any actuation of the trigger causes a capture (Col. 2, Lines 18,19, "...shutter trigger...").

As to claim 43, Bronson teaches the apparatus of Claim 28 wherein the pointer button (Col. 3, Lines 55-58, "...select button...") resides within a region (Figure 1A, hand grip "100" is the region) and wherein a position of the pointer button within the region is absolutely mapped to the display (*The depressing of select button (position) provides an instruction on the microdisplay viewfinder to the camera.*).

As to claim 44, Bronson teaches the apparatus of Claim 28 wherein the trigger and the pointer button provide access to substantially all user controls without the need for other buttons (Col. 3, Lines 55-58).

4. Claim 54 is rejected under 35 U.S.C. 102(e) as being anticipated by Havey et al. (US # 6,597,346).

As to claim 54, Havey et al. teaches an apparatus (Figure 8) comprising: a binocular display assembly (Figure 8; Col. 8, Lines 25-44); an execute input interface (Col. 7, Lines 31-39); and a pointer interface (Figure 1, user input device "30") providing absolute mapping between a pointer button and a location in a display of the display assembly (Col. 7, Lines 31-39; *{The examiner feels that a mouse still reads on the claim. In the response to arguments section in the previous final office, the pointer speed characteristic of the mouse was explained. Depending upon the chosen speed, the point of the cursor on the screen would be at a different point on the screen with the same distance moved of the mouse.}*),

wherein substantially all functions of the apparatus can be accessed using only the pointer interface and the execute input interface (Col. 5, Lines 17-20).

5. Claims 71-73 are rejected under 35 U.S.C. 102(e) as being anticipated by Taguchi et al. (US # 6,871,010).

As to claim 71, Taguchi et al. teaches an apparatus comprising: a handheld camera (Figure 2); a display integrated into the camera (Figure 2, viewfinder “8”), the display having a first region to display first still image at a full display resolution; and a second region to simultaneously display a second still image at substantially reduced resolution (Figure 6; see Response to Arguments section above).

As to claim 72, Taguchi et al. teaches the apparatus of Claim 71 wherein the second region is an inset within the first region (Figure 6).

As to claim 73, Taguchi et al. teaches the apparatus of Claim 71 wherein the first image and the second image may be toggled between a current view of the camera and a previously captured image (Figure 6; Figure 9; *{Examiner refers to current view of the camera as the received still picture, and the previously captured image as the received motion picture.}*).

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner

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to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3,7,21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 2001/0055155) in view of Abe (US # 5,581,399).

As to claim 1, Kanai et al. teaches an apparatus (Figure 1) comprising: a housing (Figure 1, center body “11”); a grip coupled to the housing (Figure 1, grip portions “12” coupled to center body “11”); and a binocular assembly coupled to the housing (Figure 1, L1 coupled to center body “11”) and rotatable about the housing between a plurality of angular positions which can be mechanically maintained during use ([0059]). The claim differs from Kanai et al. in that it further requires that the binocular assembly be a binocular digital display assembly.

In the same field of endeavor, Abe teaches a binocular digital display assembly having grip portions for right and left-handed use (Figure 1, housings “2L and 2R”). Left and right LCDs are provided in the grip portions for viewing (Figure 1). The assembly further comprises image sensors formed in a center portion of the binocular assembly for forming an image (Figure 1, image sensors “41L and 41R”). In light of the teaching of Abe, it would have been obvious to one of ordinary skill in the art to provide the image sensor and display system in the binoculars of Kanai et al., because an artisan of ordinary skill in the art would recognize that this would provide easy and synchronized capture and storage of stereoscopic image (see Abe, Col. 1, Lines 1-44).

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As to claim 2, Kanai et al., as modified by Abe, teaches the apparatus of Claim 1 wherein the binocular display assembly comprises: a first lens (see Kanai et al., Figure 1, right EP); a first display element disposed to be a focal distance from the first lens when the display assembly is in a deployed orientation (see Abe, LCD “34R”); a second lens (see Kanai et al., left EP; [0060], Lines 3 and 4); and a second display element disposed to be a focal distance from the second lens when the display is in a deployed orientation (see Abe, LCD “34L”).

As to claim 3, Kanai et al., as modified by Abe, teaches the apparatus of Claim 2 wherein the display elements are one of liquid crystal displays (LCDs) (see Abe, Figure 4, LCDs “34L and 34R”), organic light emitting diode (OLED) displays, Liquid Crystal On Silicon (LCOS) displays, electroluminescent (EL) displays, and retinal scan lasers.

As to claim 7, Kanai et al., as modified by Abe, teaches the apparatus of Claim 1 further comprising: a lens assembly within the housing (see Abe, Figure 1, “42L, 421 L” and “42R, 421 L”); and an image-sensing array (ISA) optically coupled to the lens assembly (see Abe, Figure 1).

As to claim 21, Kanai et al., as modified by Abe, teaches the apparatus of Claim 1 wherein at least a first position is suitable for right-handed use and at least a second position is suitable for left-handed use (see Kanai et al., Figure 1, all positions suitable for right and left handed use.).

As to claim 22, Kanai et al., as modified by Abe, teaches the apparatus of Claim 1 wherein in the deployed orientation, the grip may pivot to at least one self maintaining position on an axis orthogonal to an axis of rotation of the display assembly (see Kanai et al., Figure 1).

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 2001/0055155) in view of Abe (US # 5,581,399) and further in view of Ohmura et al. (US 2004/0130645).

As to claim 9, Kanai et al., as modified by Abe, teaches the apparatus of Claim 1. The claim differs from Kanai et al., as modified by Abe, in that it further requires that the apparatus comprises a distributed network interface coupled to the display assembly.

In the same field of endeavor, Ohmura et al. teaches a camera that comprises an antenna for transmitting and receiving images (Figure 43, antenna “325”; [0408]). In light of the teaching of Ohmura et al., it would have been obvious to one of ordinary skill in the art to include the antenna of Ohmura et al. (Figure 43) in the camera of Kanai et al., as modified by Abe, because an artisan of ordinary skill in the art would recognize that this would allow for the transfer of digital images among cameras without the need for a cable that prevents portability.

3. Claims 8,10-15,17,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 2001/0055155) in view of Abe (US # 5,581,399) and further in view of Bronson (US # 6,384,863).

As to claim 8, Kanai et al., as modified by Abe, teaches the apparatus of Claim 7. The claim differs from Kanai et al., as modified by Abe, in that it further requires a sensor to detect a position of the display assembly relative to the ISA and cause an adjustment to an image displayed on the display assembly based on the position to maintain a consistent orientation of a target on the display.

In the same field of endeavor, Bronson teaches a single button used to switch an image sensing array to and from landscape position and portrait position (Col. 3, Lines 62-65; *{The processor, inherent in the digital camera, acts as a sensor, in that, when the button is depressed to initiate array rotation, the processor senses, by an inherent means of software or hardware, whether the camera is in portrait or landscape position in order to effectively position the array back to either the portrait or landscape position depending on the current position.}*). In light of the teaching of Bronson, it would have been

obvious to one of ordinary skill in the art to include the ability of the camera of Kanai et al., as modified by Abe, to switch between landscape and portrait position, because an artisan of ordinary skill in the art would recognize that this would allow the user the ability to more appropriately acquire more horizontal or vertical information.

As to claim 10, Kanai et al., as modified by Abe, teaches the apparatus of Claim 7. The claim differs from Kanai et al., as modified by Abe, in that it further requires that the binocular display assembly comprises a photographic light source.

In the same field of endeavor, Bronson teaches a photographic fill-in flash on its display assembly (Figure 1, fill-in flash “150”). In light of the teaching of Bronson, it would have been obvious to one of ordinary skill in the art to include a light source in the binocular display assembly of Kanai et al., as modified by Abe, because this would allow the image captured to be more illuminated.

As to claim 11, Kanai et al., as modified by Abe and Bronson, teaches the apparatus of Claim 7 wherein the binocular display assembly a photographic light source positioned sufficiently far from the lens assembly to reduce illumination errors (see rejection of claim 10 above; *{It is inherent that the fill-in flash of Bronson is of sufficient space to avoid errors and when combined with Abe, this same distance would apply.}*).

As to claim 12, Kanai et al., as modified by Abe, teaches the apparatus of Claim 7. The claim differs from Kanai et al., as modified by Abe, in that it further requires a trigger to cause a capture by the ISA, the trigger disposed on the grip to allow actuation by an index finger of a hand holding the grip.

In the same field of endeavor, Bronson teaches a camera comprising a trigger button disposed on a grip used for capturing an image (see Bronson, Figure 1, trigger button “110”; Col. 2, Lines 18-21). In light of the teaching of Bronson, it would have been obvious to one of ordinary skill in the art to include

the ability the trigger button in the camera of Kanai et al., as modified by Abe, because an artisan of ordinary skill in the art would recognize that this would provide an ability to capture an image when the hand is holding camera in a more ergonomic fashion.

As to claim 13, Kanai et al., as modified by Abe and Bronson, teaches the apparatus of Claim 12 wherein any actuation of the trigger causes a capture (Col. 2, Lines 18-21).

As to claim 14, Kanai et al., as modified by Abe and Bronson, teaches the apparatus of Claim 1 further comprising: a pointer button coupled to the grip to provide an interface for user manipulation of a pointer within the display (see Bronson, Col. 3, Lines 55-61, "...select button...").

As to claim 15, Kanai et al., as modified by Abe and Bronson, teaches the apparatus of claim 14 wherein the pointer button is disposed to allow actuation by the thumb of a hand holding the grip (see Bronson, Col. 3, Lines 47-49).

As to claim 17, Kanai et al., as modified by Abe and Bronson, teaches The apparatus of Claim 14 wherein the pointer button (see Bronson, Col. 3, Lines 55-58, "...select button...") resides within a region (see Bronson, Figure 1A, hand grip "100" is the region) and wherein a position of the pointer button within the region is absolutely mapped to the display (*The depressing of select button (position) provides an instruction on the microdisplay viewfinder to the camera.*).

As to claim 18, Kanai et al., as modified by Abe and Bronson, teaches the apparatus of Claim 1 wherein the trigger and the pointer button provide access to substantially all user controls without the need for other buttons (see Bronson, Col. 3, Lines 55-58).

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4. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 2001/0055155) in view of Abe (US # 5,581,399) in view of Bronson (US # 6,384,863) and further in view of Blazek et al. (US # 4,864,425).

The examiner believes claim 16 should depend from claim 14, because it is the first claim that introduces the pointer button.

As to claim 16, Kanai et al., as modified by Abe and Bronson, teaches the apparatus of Claim 14. The claim differs from Okuyama et al., as modified by Bronson, in that it requires that the pointer button is only accessible when the grip is in a deployed orientation.

In the same field of endeavor, Blazek et al. teaches an apparatus (Figure 6) in which the pointer button is only accessible when the grip is in a deployed position (Figure 6; *{When the grip "37" is adjusted to be covered by the shoulder rest "27" and brackets (not shown), the buttons seen on the grip (Figure 6) are not accessible.}*). In light of the teaching of Blazek et al., it would have been obvious to one of ordinary skill in the art to position the control buttons in the system of Kanai et al., as modified by Abe and Bronson, to only be accessible when the grip is in a deployed orientation, because an artisan of ordinary skill in the art would recognize that this would prevent accidental capture initiation when the user does not intend it.

5. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 2001/0055155) in view of Abe (US # 5,581,399) and further in view of Kubo et al. (US 2001/0004268).

As to claim **19**, Kanai et al., as modified by Abe, teaches the apparatus of Claim 1. The claim differs from Kanai et al., as modified by Abe, in that it further requires that the apparatus define a plurality of memory card slots.

In the same field of endeavor, Kubo et al. teaches a digital camera with a plurality of memory card slots that accepts memory cards (Figure 4, slots “41a” and “41b”; [0043]). In light of the teaching of Kubo et al., it would have been obvious to one of ordinary skill in the art to include another memory card slot in the system of Kanai et al., as modified by Abe, because an artisan of ordinary skill would recognize that items in the memory cards in the slots are handled as if they were multiple items of image data recorded in a single large capacity memory card. Consequently erroneous operation in image reproduction may be prevented. In addition image searches may be efficiently performed through a smaller number of steps (see Kubo et al., [0081]).

As to claim **20**, Kanai et al., as modified by Abe, teaches the apparatus of Claim 7. The claim differs from Kanai et al., as modified by Abe, in that it further requires that the apparatus further comprises a plurality of memory card interfaces to permit a plurality of memory cards to be concurrently attached and electronically selected by the apparatus.

In the same field of endeavor, Kubo et al. teaches a plurality of memory card slots (Figure 5, card slots “41a” and “41b”) to which a plurality of memory card devices can be concurrently attached ([0043]) and selected electronically ([0074], Lines 1-5; [0087], Lines 1-8). In light of the teaching of Kubo et al., it would have been obvious to one of ordinary skill in the art to include a plurality of memory card slots in the camera of Kanai et al., as modified by Abe, because an artisan of ordinary skill would recognize that items in the multiple memory cards in the slots are handled as if they were multiple items of image data recorded in a single large capacity memory card. Consequently erroneous operation in image reproduction

may be prevented. In addition image searches may be efficiently performed through a smaller number of steps (see Kubo et al., [0081]).

6. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 2001/0055155) in view of Abe (US # 5,581,399) and further in view of Rallison et al. (US # 6,160,666).

As to claim **23**, Kanai et al., as modified by Abe, teaches the apparatus of claim 1. The claim differs from Kanai et al., as modified by Abe, in that it further requires that the apparatus comprises a visor coupled to the housing and to rest upon a forehead of the user when held by a user for use, the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user, the visor pivots coupled to the display assembly to pivot between an open and a closed position.

In the same field of endeavor, Rallison et al. teaches a binocular display assembly comprising: a visor coupled to the housing (Figures 1 and 15; *{Examiner interprets visor as main portion "12" with shield "302" and forehead brace "22".}*) and to rest upon a forehead of the user when held by a user for use (Figure 15), the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user (Figure 2 brace "22"; Figure 15, length of shield "22"), the visor pivots coupled to the display assembly to pivot between an open and a closed position (Col. 5, Lines 8-17; *{Examiner interprets closed position where the visor, as interpreted by examiner, is pivoted above user's eyes via the left and right strap pivots "17a and 17b". Open position is a position as seen in Figure 15.}*). In light of the teaching of Rallison et al. it would have been obvious to include these features in the display assembly of Kanai et al., as modified by Abe, because an artisan of ordinary skill in the art would recognize that this would provide a simple, lightweight display assembly (see Rallison et al., Col. 2, Lines 20-23) providing a properly focused image.

As to claim **24**, Kanai et al., as modified by Abe and Rallison et al., teaches the apparatus of Claim 23 wherein pivoting the visor to the open position activates the display (see Rallison et al., Figure 15; *{Activated display is interpreted as being able to be viewed (used for intended purpose). In Figure 15, the open position is as seen.}*).

As to claim **25**, Kanai et al., as modified by Abe and Rallison et al., teaches the apparatus of Claim 23 wherein when the visor is in the closed position, the display is in an inactive state (see Rallison et al., Col. 5, Lines 8-17; *{Closed position is visor and entire housing pivoted upward so LCD cannot be seen.}*).

As to claim **26**, Kanai et al., as modified by Abe and Rallison et al., teaches the apparatus of Claim 23 wherein the visor protects a lens of the display assembly when in the closed position (see Rallison et al., Col. 10, Lines 49-54; *{Shield protects in all positions.}*).

7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bronson (see Patent Number above) in view of Blazek et al. (see Patent Number above).

As to claim **30**, Bronson teaches the apparatus of Claim 28. The claim differs from Bronson in that it requires that the pointer button is only accessible when the handle is in a deployed orientation.

In the same field of endeavor, Blazek et al. teaches an apparatus (Figure 6) in which the pointer button is only accessible when the handle is in a deployed position (Figure 6; *{When the grip "37" is adjusted to be covered by the shoulder rest "27", the buttons seen on the grip (Figure 6) are not accessible.}*). In light of the teaching of Blazek et al., it would have been obvious to one of ordinary skill in the art to position the lens assembly of Bronson "200" where the control buttons "210" are only accessible when the handle is in a deployed orientation, because an artisan of ordinary skill in the art would recognize that this would prevent accidental capture initiation when the user does not intend it.

8. Claims 32,33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bronson (see Patent Number above) in view of Kawamura et al. (US # 4,326,783).

As to claim **32**, Bronson teaches the apparatus of Claim 28. The claim differs from Bronson in that it further requires a self- powered expander which when actuated expands the display assembly from its stowed volume to its deployed volume.

In the same field of endeavor, Kawamura et al. teaches a motor for expanding a lens into a deployed orientation (Col. 8, Lines 39-45). In light of the teaching of Kawamura et al., it would have been obvious to one of ordinary skill in the art to include a self-powered expander for the display assembly of Bronson, because an artisan of ordinary skill in the art would recognize that this would allow the system to be more automated without the use of manual adjustment.

As to claim **33**, Bronson teaches the apparatus of Claim 28. The claim differs from Bronson in that it further requires a self- powered positioner which when actuated transitions the display assembly from its stowed orientation to its deployed orientation.

In the same field of endeavor, Kawamura et al. teaches a motor for expanding a lens into a deployed orientation (Col. 8, Lines 39-45). In light of the teaching of Kawamura et al., it would have been obvious to one of ordinary skill in the art to include a self-powered expander for the display assembly of Bronson, because an artisan of ordinary skill in the art would recognize that this would allow the system to be more automated without the use of manual adjustment.

9. Claims 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bronson (see Patent Number above) in view of Ohmura et al. (see Patent Number above).

As to claim **36**, Bronson teaches the apparatus of Claim 28. The claim differs from Bronson in that it further requires a distributed network interface coupled to the display assembly.

In the same field of endeavor, Ohmura et al. teaches a camera that comprises an antenna for transmitting and receiving images (Figure 43, antenna “325”; [0408]). In light of the teaching of Ohmura et al., it would have been obvious to one of ordinary skill in the art to include the antenna of Ohmura et al. in the display assembly of Bronson “200”, because an artisan of ordinary skill in the art would recognize that this would allow for the transfer of digital images among cameras without the need for a cable that prevents portability.

As to claim **37**, Bronson teaches the apparatus of Claim 36 further comprising: a photographic light source (see Bronson, Figure 1A, fill-in flash “150”).

As to claim **38**, Bronson teaches the apparatus of Claim 36 further comprising: a photographic light source (see Bronson, Figure 1A, fill-in flash “150”) positioned sufficiently far from the lens assembly to reduce illumination errors (see Bronson, Figure 1A).

As to claim **39**, Bronson teaches the apparatus of Claim 36 further comprising: a trigger to cause a capture by the ISA (see Bronson, Col. 2, Lines 18,19), the trigger disposed on the handle to allow actuation by an index finger of a hand holding the handle (see Bronson, Col. 2, Lines 20,21).

10. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohmura et al. (us 2006/0130645) in view of Kubo et al. (US 2001/0004268).

As to claim **45**, Ohmura et al. teaches the apparatus of Claim 28. The claim differs from Ohmura et al. in that it further requires a plurality of memory card slots.

In the same field of endeavor, Kubo et al. teaches a digital camera with a plurality of memory card slots that accepts memory cards (Figure 4, slots “41a” and “41b”; [0043]). In light of the teaching of Kubo et al., it would have been obvious to one of ordinary skill in the art to include another memory card slot in the system of Ohmura et al. (Figure 27), because an artisan of ordinary skill would recognize that items in the memory cards in the slots are handled as if they were multiple items of image data recorded in a single large capacity memory card. Consequently erroneous operation in image reproduction may be prevented. In addition image searches may be efficiently performed through a smaller number of steps (see Kubo et al., [0081]).

11. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bronson (see Patent Number above) in view of Ohmura et al. (see Patent Number above) in view of Kubo et al. (see Patent Number above).

As to claim 46, Bronson, as modified by Ohmura et al., teaches the apparatus of claim 36. The claim differs from Bronson, as modified by Ohmura et al., in that it further requires a plurality of memory card interfaces to permit a plurality of memory cards to be concurrently attached and electronically selected by the apparatus.

In the same field of endeavor, Kubo et al. teaches a plurality of memory card slots (Figure 5, card slots “41a” and “41b”) to which a plurality of memory card devices can be concurrently attached ([0043]) and selected electronically ([0074], Lines 1-5; [0087], Lines 1-8). In light of the teaching of Kubo et al., it would have been obvious to one of ordinary skill in the art to include a plurality of memory card slots in the recording/playback devices “14L” and “14R” of Bronson, as modified by Ohmura et al., because an artisan of ordinary skill would recognize that items in the multiple memory cards in the slots are handled as

if they were multiple items of image data recorded in a single large capacity memory card. Consequently erroneous operation in image reproduction may be prevented. In addition image searches may be efficiently performed through a smaller number of steps (see Kubo et al., [0081]).

Allowable Subject Matter

1. Claims 4-6,27,29 and 51 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reasons for indicating allowable subject matter can be found in the previous office action.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Daniels whose telephone number is (571) 272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD
7/20/2007



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